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Adel Almubarak

King Faisal University, Saudi Arabia

Thermal and mechanical nociceptive threshold testing in one humped camels (*Camelus dromedarius*)

Currently, several analgesic drugs such as opioids and NSAIDs have been used effectively in veterinary medicine. However, the clinical efficacy of these drugs for use in camels is still unknown. The aims of this study were to apply thermal and mechanical nociceptive threshold testing techniques in camels and evaluate them with reference to their applications, limitations and the factors which can influence both the testing procedure itself and the animal's responses. Seven healthy camels of different breeds were brought into individual stables a minimum of three days before each experiment to allow re-acclimatization to the study environment. The camels were equipped with a wireless thermal and mechanical threshold testing system (Topcat Metrology Ltd). The display unit was mounted on the humps of the camels with the help of a surcingle and Velcro strips. Mechanical threshold was measured by using a pneumatic actuator, and thermal threshold was measured by using a thermal probe, both attached to the skin of metacarpus. Each camel went through 18 mechanical thermal and thresholds stimulation on 3 occasions at one-week interval. All camels responded to the stimulations, and type of reaction to the stimulus with a clear-cut end-point of stimulation was recorded. In conclusion, nociceptive threshold testing in camel using mechanical and thermal stimuli will be accepted as standard tests in preclinical studies for development of analgesics for camel use.

Biography

A Almubarak is working at Camel Research Centre, King Faisal University, Saudi Arabia. His experience includes various programs, contributions and participation in different events for diverse fields of study. His research interests reflect in his wide range of publications in various national and international journals.

aimubarak@kfu.edu.sa